ORIGINAL (Red)

R-585-3-9-46

SITE INSPECTION OF
ITT GRINNELL CORPORATION
PREPARED UNDER

TDD NO. F3-8806-06
EPA NO. PA-335
CONTRACT NO. 68-01-7346

FOR THE

HAZARDOUS SITE CONTROL DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

JUNE 9, 1989

NUS CORPORATION
SUPERFUND DIVISION

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SECTION 1

1.0 INTRODUCTION

1.1 Authorization

NUS Corporation performed this work under Environmental Protection Agency Contract No. 60-01-7346. This specific report was prepared in accordance with Technical Directive Document No. F3-8806-06 for the ITT Grinnell site, located in Columbia, Lancaster County, Pennsylvania.

1.2 Scope of Work

NUS FIT 3 was tasked to conduct a site inspection of the subject site.

1.3 Summary

The ITT Grinnell Corporation site is an approximately 62-acre wastewater treatment facility, foundry, and galvanizing plant that is currently owned and operated by the Grinnell Corporation, a subsidiary of Tyco Labs. The corporation, an active manufacturer of malleable and ductile iron fittings and jobwork, is located northeast of Columbia in Lancaster County, Pennsylvania. The site is bordered by Lincoln Highway to the south, 15th Street to the east, Glatfelter Memorial Field to the west, and an unnamed tributary of Shawnee Run Creek to the north. A fence surrounds the property boundaries. The property was originally owned and operated by a foundry, the Columbia Malleable Casting Company, from 1925 until 1929. The company was sold to the Grinnell Corporation in 1930. Grinnell and Malleable Casting Company operated as a foundry, generating typical foundry wastes: foundry sand, furnace slag, and unusable sand cores. The past waste quantities and waste-handling procedures are unknown.

ITT Grinnell Corporation purchased Grinnell Corporation in 1968 and operated a foundry and a galvanizing operation on site from 1968 until 1986. In February 1986, the company was purchased by another company that had no relationship to the original Grinnell Corporation but was also called the Grinnell Corporation.

Between 1968 and 1986, a manufacturing plant and wastewater treatment plant were located on the site. Two unlined parallel lagoons, approximately 320 feet long and 50 feet wide by 5 feet deep, were located west of the former wastewater treatment plant and west of two separation pools. The two separation pools, located north of the main plant, were used for skimming oil off noncontact cooling water. The southernmost lagoon is currently inactive; it has been backfilled, covered, and well vegetated. The northernmost lagoon is currently active and receives wastewaters from the new wastewater treatment plant.

According to Arthur Dalla Piazza, of the Pennsylvania Department of Environmental Resources (PA DER) Bureau of Solid Waste Management, the southern lagoon underwent closure in 1981. The exact uses of this lagoon are unknown. Records indicate that the lagoon received polishing and nonpoint-source discharge, cooling water for temperature conditioning from the prior treatment plant, and surface runoff. The lagoon may have also been used for the disposal of metal hydroxide sludge cake, a product of the lime treatment of rinse waters (pickle liquors and acidic rinse water) from the galvanizing department. The current Grinnell representatives indicated that the lagoon was put into operation in 1950, and its exact uses were unknown. The discharges from the lagoons operated under permit no. 3677204.

The inactive wastewater treatment plant, located east of the southern lagoon, lime treated and gravity filtered acidic rinse waters and spent pickle liquors until its closure in 1982. The wastewater treatment plant currently houses the pumps for the new wastewater treatment plant. Records indicate that the treated wastewaters were discharged to the northern and southern lagoons and then to the unnamed tributary to Shawnee Run. At some time during its ownership, ITT Grinnell Corporation allegedly discharged acidic rinse waters and spent pickle liquors directly into the southern lagoon without a permitted treatment.

A wastewater treatment plant was built in 1982 in order to meet the effluent criteria, as outlined in the company's NPDES permit. The corporation repeatedly exceeded the interim effluent limitations for zinc and iron. The wastewater treatment plant is located northwest of the main manufacturing plant and treats all wastewater generated from the galvanizing department, including emergency and acidic rinse waters. The old wastewater treatment plant houses the pumps for the new plant. Within the new wastewater treatment plant are batch treatment tanks, a 6,000-gallon tank containing a 50-percent solution of sodium hydroxide, and a 1,000-gallon tank containing a 20-percent solution of sodium hydroxide for storage and neutralization of wastes.

A third lagoon, located on the western side of the southern lagoon, was supposedly on site until 1983, at which time it was backfilled. The current Grinnell representatives noted that liquids were contained in this lagoon, but it is not known if the liquid was wastewater or rainwater. A wastewater inspection report from July 7, 1984, prepared by Randy King, water quality specialist for the PA DER Bureau of Water Quality Management, indicated that sludges from the northern lagoon were to be put in the western lagoon.

The ITT Grinnell Corporation obtained NDPES permits and several water quality management permits that date back to 1956. The corporation was found in violation of the Pennsylvania Clean Streams Laws on February 18, 1977 and December 19, 1980. Air quality permits are also held by the corporation for the galvanizing department and foundry operations. In addition, the corporation was permitted for the disposal of foundry wastes, including slag, sand, and baghouse dusts.

ITT Grinnell Corporation produced the same types of wastes as the current owners, Grinnell Corporation; however, the exact quantities are unknown. During the later years of operation, ITT Grinnell Corporation disposed its wastes in the same manner as Grinnell Corporation. However, earlier waste-handling practices are not known.

The current operations at the site include a foundry and a galvanizing department for the manufacturing of malleable and ductile iron fittings and jobwork. Scrap steel is purchased by the company, and the iron is liquidized by an electric induction melting technique. The liquid metal is then poured into "greensand" molds. After the molds cool, the sand is separated and recycled. The final castings are then shot cleaned to remove any sand and polished. Most products are annealed before they are sent to either a galvanizing department and/or a machine shop to be treated and assembled.

The galvanizing department, located at the southwestern corner of the main plant, houses two 2,000-gallon storage tanks for pickle liquors. In addition, there are four acid baths and three quench tanks within the galvanizing department.

PA DER conducted a preliminary assessment of the site on August 21, 1981. On March 14, 1988, NUS FIT 3 performed a site reconnaissance to locate potential sample locations. The FIT conducted a site inspection of the property on July 13, 1988 and collected soil and home well samples.

Analysis of on-site soil samples revealed elevated levels of zinc (up to 12,300 mg/kg), cadmium (up to 7.9 mg/kg), lead (up to 648 mg/kg), antimony (up to 62.7 mg/kg), and manganese (up to 7,600 mg/kg). Phenol (up to 4,400 ug/kg), 4-methylphenol (up to 440 ug/kg), and 2,4-dimethylphenol (up to 930 ug/kg) were detected in the southern inactive lagoon soil samples. Although these levels are not expected to pose a threat to human health, the possibility of further infiltration to groundwater or runoff to the surface waters in the area may exist.

No significant contaminants were measured in any of the home wells sampled.

A Quality Assurance Review of laboratory data and results is presented in section 7.0, and a Toxicological Evaluation of these results is presented in section 8.0.

SECTION 2

2.0 THE SITE

2.1 Location

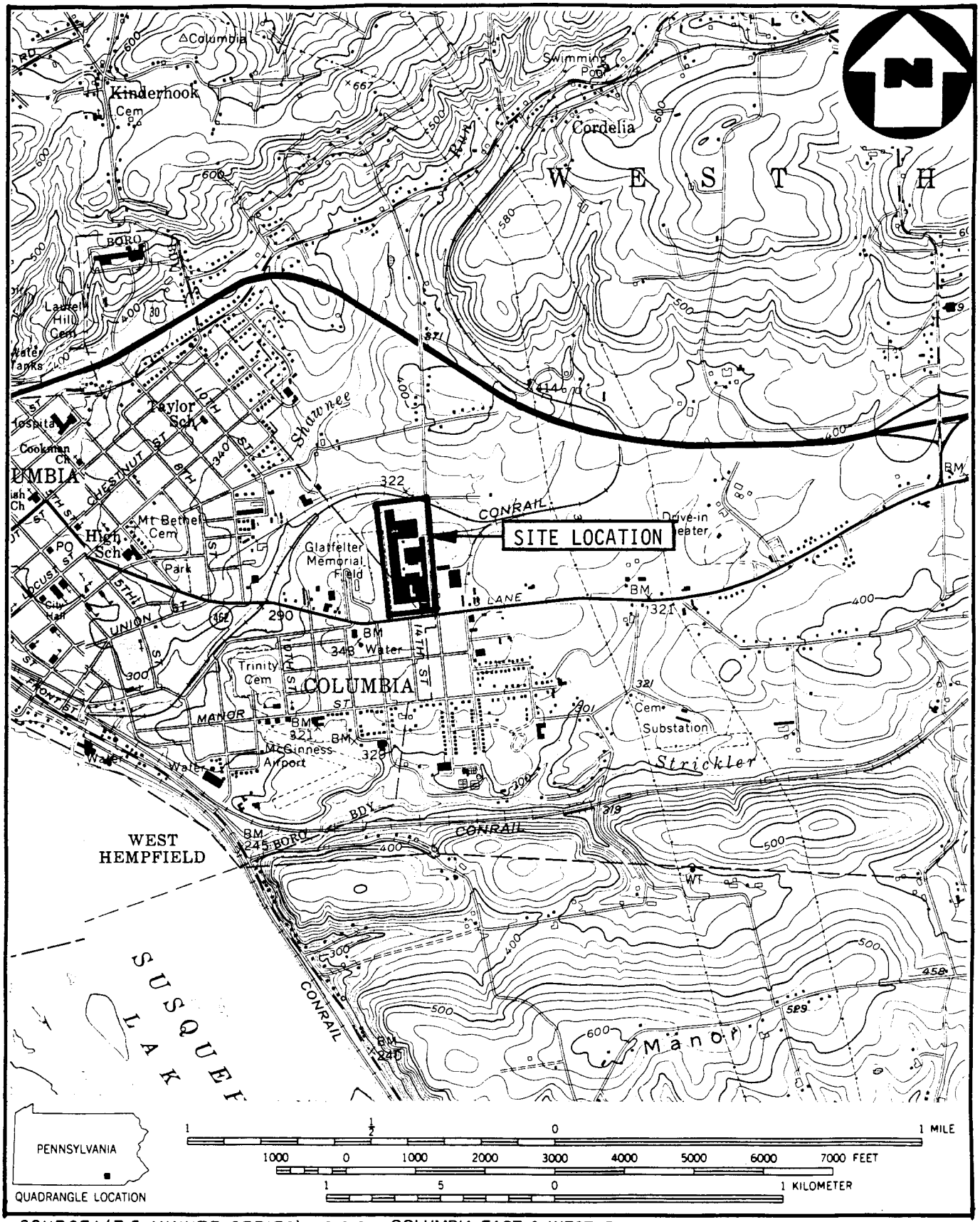
The ITT Grinnell site is located on the corner of 15th Street and Lincoln Highway (Route 462), outside the Columbia City limits in West Hempfield, Lancaster County, Pennsylvania (see figure 2.1, page 2-2). The site and the surrounding vicinity within the study area can be located on the United States Geological Survey (U.S.G.S.) Columbia East, Pennsylvania 7.5 minute series topographic map. The center of the property lies at north 40° 02' 08" latitude and west 76° 29'06" longitude or 5.75 inches north of the southern border and 2.25 inches east of the western border of the U.S.G.S. Columbia East, Pennsylvania topographic map.[1]

2.2 Site Layout

The approximately 62-acre site is an active foundry and galvanizing department. The property boundary is surrounded by a chain-link fence with a guard house at the entrance (see figure 2.2, page 2-3). The facility is bordered to the south by Lincoln Highway, to the east by 15th Street, to the north by an unnamed tributary of Shawnee Run and Reading Railroad, and to the west by Glatfelter Memorial Field. The site is located just northeast of the town limits of Columbia.[2,3]

The manufacturing plant is located on the southern portion of the site. A drum storage area for empty hydraulic oil containers is located a few yards north of the manufacturing plant. The new wastewater treatment plant is located west of the drum storage area. The site grades steeply to the north along the base of the new wastewater treatment plant and the drum storage area.[2,3]

Two unlined lagoons, approximately 30 feet apart, with dimensions of 303 by 50 by 5 feet, were located 2,000 feet northwest of the manufacturing plant in 1981. These lagoons received water from the old wastewater treatment plant.[4] The southern lagoon is currently inactive; it has been backfilled, covered, and well vegetated. The northern lagoon is currently active and receives the treated water from the separation pools and the new wastewater treatment plant. Discharge from the lagoon enters an unnamed tributary of Shawnee Run at the northwestern corner of the property, approximately 75 feet north of the lagoon. The tributary joins Shawnee Run approximately 200 to 250 yards west of the site. A third lagoon, which is currently filled and covered, was located approximately 66 feet west of the northern and southern lagoons. Its dimensions and purpose are unknown; however, the lagoon appears to have been approximately 63 feet in length. The lagoon area is flat (minimal slope). Surface water appears to drain to the active lagoon.[2,3]



SOURCE: (7.5 MINUTE SERIES) U.S.G.S. COLUMBIA EAST & WEST, PA QUADS.

SITE LOCATION MAP

ITT GRINNELL, COLUMBIA, PA

SCALE 1: 24000

FIGURE 2.1

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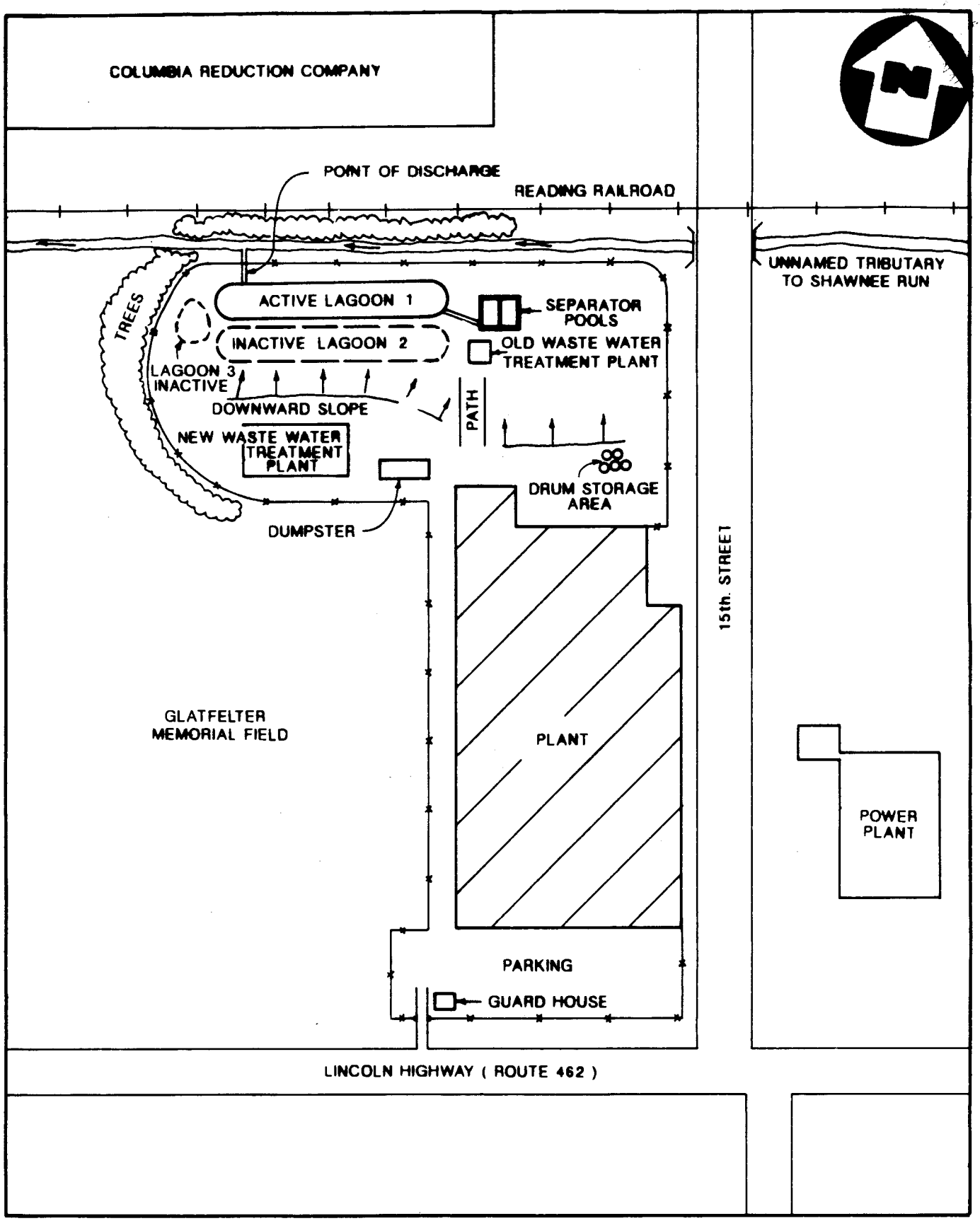

SITE SKETCH

ITT GRINNELL, COLUMBIA, PA.

(NO SCALE)

FIGURE 2.2

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Two separation pools are located east of the lagoon area. The former wastewater treatment plant is located north of the manufacturing plant and east of the lagoon area. It currently houses the pumps for the wastewaters.[2,3,5]

2.3 Ownership History

The property was originally owned by the Columbia Malleable Casting Company, from 1925 until 1929, and was sold to Grinnell Corporation in 1930. ITT Grinnell Corporation purchased the facility in 1968 and owned the facility until 1986 when it was purchased by the Grinnell Corporation, which is unrelated to the original Grinnell Corporation. The Grinnell Corporation currently owns and operates the facility.[3]

2.4 Site Use History

The subject site is currently operated as an acid pickling and hot galvanizing department and a foundry for the manufacturing of malleable and ductile iron fittings and jobwork. Utilizing an electric induction technique, the Grinnell Corporation liquidizes iron from scrap steel and then molds the iron in casts (see appendix C). The facility includes a wastewater treatment facility for the treatment of rinse waters from the galvanizing department, a manufacturing plant, two separation pools to separate oil from the surface of noncontact cooling water, and an unlined lagoon that receives the treated waters from the wastewater treatment plant before the water's NPDES-permitted discharge into an unnamed tributary of Shawnee Run (see figure 2.2, page 2-3).[2]

Within the treatment plant is a 4,000-gallon batch acid neutralization treatment tank, a 6,000-gallon tank containing a 50-percent solution of sodium hydroxide, and a 1,000-gallon tank containing a 20-percent solution of sodium hydroxide. The solutions are used to neutralize the waste acidic solutions generated in the galvanizing department. The neutralized acidic solutions are filtered, pressed, and discharged to the unlined lagoon (see appendix D). The resulting galvanizing sludge from the filtered water is transported off site to the Envirite Corporation, in York, Pennsylvania (see appendix E). All other wastes, excluding wastewaters, are transported off site to approved facilities.[2]

ITT Grinnell Corporation operated the facility before Grinnell's purchase on February 21, 1986. The operations of ITT Grinnell paralleled those of Grinnell; however, two additional unlined lagoons were located on site. Records indicate that the southern lagoon, parallel to the currently used lagoon, received polishing and nonpoint-source discharge, cooling water for temperature conditioning from the former treatment plant, and surface runoff. The lagoon may have also been used for the disposal of the metal hydroxide sludge cake, a product of the treatment of rinse waters (pickle liquors and acidic rinse waters) from the galvanizing department.[3,6] The earliest manifests kept by ITT Grinnell in approximately 1978 and 1979 indicated that these sludges were disposed off site. These manifests were not available at the time of this report. Acidic rinse waters and spent pickle liquors from the galvanizing department were allegedly, at some time during ITT Grinnell's ownership, directly discharged into the currently inactive southern lagoon without a permitted treatment plan. However, water quality permits, dated as early as 1956, were held for the subject site. The contents of these permits were unavailable at the time of this report.[2]

Prior to 1982, the wastewater treatment included chemical flocculation and pH adjustment (lime treatment). In 1982, a new wastewater treatment plant was built for batch treatment neutralization of acidic wastewaters and for the filter press.[6]

A third lagoon, backfilled in approximately 1983, was also located west of the larger lagoon. The exact uses of the lagoon are unknown to this date.[3] A water discharge inspection report, dated July 7, 1984, stated that sludge from the northern lagoon was to be put into the old western lagoon.[7]

From 1928 until 1968, the property was operated as a foundry, generating typical foundry wastes, which were stored on site. The wastes included foundry sand, furnace slag, and unusual sand core. These wastes are currently transported off site to the Lancaster Area Refuse Authority Landfill, in Lancaster, Pennsylvania.[3]

2.5 Permit and Regulatory Action History

The ITT Grinnell Corporation was issued Water Quality Management Permit No. 1811 on October 2, 1956 and Water Quality Management Permit No. 3677 on August 21, 1977 by the Pennsylvania Department of Health (the expiration dates were unavailable at the time of this report). The corporation was also issued NPDES Permit No. 3677204 (the issue dates and the expiration date were unavailable at the time of this report). The permits were issued for the discharge of wastewaters and storm waters from the subject site.[8]

The Pennsylvania Bureau of Water Quality issued Water Quality Management Permit No. 3680201 (Part 1) on March 23, 1981 (expiration date unknown) and Water Quality Management Permit No. PA0080195 (Part 1) on January 7, 1981 (expiration date June 30, 1981). The corporation held NPDES Permit No. PA008195 (issued on February 15, 1984; expired on February 15, 1989). The above permits were held for discharge into an unnamed tributary to Shawnee Run.[8]

The ITT Grinnell Corporation currently holds RCRA generator status (No. PAD 0962-6649) for the generation of galvanizing sludge. In addition, Grinnell Corporation holds Air Quality Control Permit No. 36-304-034A for the casting, molding, and sand-handling air systems; Permit No. 36-304-038D for the casting handling, cleaning, and scrap preheat system; Permit Nos. 36-304-046A and 36-304-046B for the three grinders and churn controlled by a fabric collector; Permit No. 36-304-0554B for a foundry casing, grinding, and cleaning system; and Permit No. 36-304-060B for the sand/bentonite casting and handling system (see appendix F). NPDES Permit No. PA0080195 was held for the northern lagoon's discharge into an unnamed tributary of Shawnee Run. The permit covers three outfalls: outfall no. 002 for the discharge of storm water; outfall no. 100 for processed waters from the galvanizing operations; and outfall no. 001 for noncontact cooling water (see appendix G).[8]

A Consent Order and Agreement was issued on December 19, 1980 for violation of Pennsylvania Clean Stream Laws for interim effluent limitations (see appendix H). Monthly inspections pursuant to NPDES permits and the Clean Streams Law were carried out by the Pennsylvania Bureau of Water Quality, which detected effluent excesses of zinc and iron. In addition, the Pennsylvania Bureau of Solid Waste Management performed a preliminary assessment on July 8, 1981 and prepared a field trip report on August 19, 1981.[8]

2.6 Remedial Action to Date

No remedial action has been performed at the subject site. A new wastewater treatment plant was built in response to the Consent Order and Agreement issued on December 19, 1980 (see appendix H).[8]

The southern and western lagoons are currently filled and have been revegetated. There are no records of closure plans for the southern and western lagoons (currently inactive lagoons).[8]

SECTION 3

3.0 ENVIRONMENTAL SETTING

3.1 Water Supply

Within a three-mile radius of the site, public water is supplied by the Columbia Water Company (CWC), the Mountville Municipal Water Company (MMWC), and the Marietta Gravity Water Company (MGWC).[9]

The Columbia Water Company (CWC) serves the city of Columbia and areas to the northeast and southeast of the site. CWC serves primarily residential customers (4,672) but also has commercial (214), industrial (488), and institutional (20) clients. A total population of 18,825 persons is supplied by the system. The water is drawn entirely from the Susquehanna River from a source located approximately 0.5 mile upstream from the confluence of Shawnee Run and the Susquehanna River (1.3 miles west of the site). This intake has a capacity of 1.68 million gallons per day.[9]

The Mountville Municipal Water Company (MMWC) serves the town of Mountville and the surrounding areas 2.6 miles east of the site. The MMWC serves residential (575), commercial (30), and industrial (8) customers. A total population of approximately 2,329 persons is supplied by the system. The water is drawn entirely from Grubb Lake, located 2.7 miles northeast of the site. The intake has a capacity of 0.125 million gallons per day.[9]

The Marietta Gravity Water Company (MGWC) supplies water to the town of Marietta and a narrow strip north of the Susquehanna River to a point 2.7 miles northwest of the site. MGWC serves residential (946), commercial (60), industrial (10), and institutional (11) customers. A total population of approximately 3,093 persons is supplied by the system. The water is drawn from Dugan and Wildcat Reservoirs and from three wells, all located approximately five miles west-northwest of the site in York County. The total intake capacity is 0.48 million gallons per day.[9]

Residents outside the distribution limits of the public supply system maintain private wells. During the FIT 3 home well survey, four home wells and one spring were identified within a 1/4-mile radius of the site. The nearest private domestic groundwater source is a spring located approximately 1,100 feet northwest of the site. Approximately 4,435 residents within a 3-mile radius of the site rely on groundwater for their drinking water supply.[1,3,10]

Seven representative wells are located 0.6 to 2.9 miles east of the site and are all completed in the Conestoga Formation (see appendix I). These wells are 6 inches in diameter, range in total depth from 100 to 400 feet (median depth is 400 feet) and are cased between 24 and 64 feet (median cased depth is 41 feet). This casing seals off surface sediment from the limestone bedrock (found 10 to 60 feet below the surface). The wells are completed as open holes in the Conestoga aquifer. Well yields range from 0.5 to 25 gallons per minute (gpm) (median yield is 5 gpm) (see plate 1 for water supply locations).[11]

3.2 Surface Waters

The area around the site is transected by numerous intermittent streams that flow southwestwardly to the Susquehanna River, which is approximately one mile southwest of the subject site. An unnamed perennial tributary of Shawnee Run that receives the discharge from an artery lagoon runs by the site to the north. The tributary converges with Shawnee Run approximately 1/2 mile southwest of the discharge point. Shawnee Run, in turn, merges with the Susquehanna approximately 0.8 mile southwest of the convergence of the tributary and Shawnee Run.[1,10]

Other major streams of note in the site vicinity are Chickies Creek to the northwest and Kreutz Creek to the southwest.[1,10]

Grubb Lake, located approximately 2.7 miles northeast of the site, is utilized as a surface water intake for the Mountville Municipal Water Authority.[1,9]

Water quality criteria have been established by PA DER for the Susquehanna River for special water-quality protection of high-quality water due to the presence of excellent-quality water and environmental features. The Susquehanna River and Shawnee Run are protected for the maintenance and propagation of fish species and additional flora and fauna that are indigenous to a warm-water habitat.[12]

No wetlands are within the study area to receive drainage from the site.[1,10]

3.3 Hydrogeology

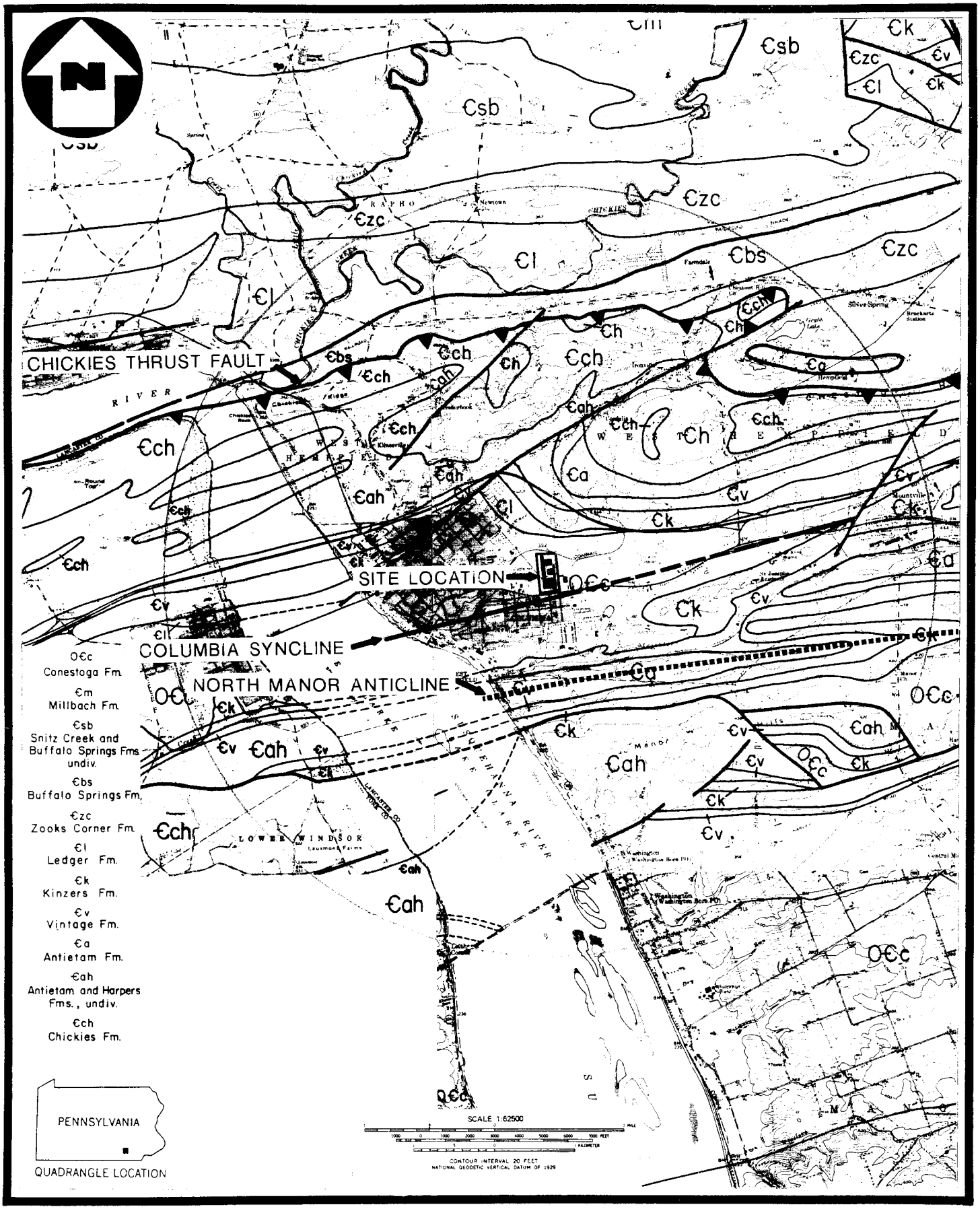
The geologic and hydrogeologic conditions in the study area were researched as part of the site inspection. A preliminary literature review was conducted to determine surface and subsurface geologic conditions, soil characteristics, and the status of groundwater transport and storage.

3.3.1 Geology

The ITT Grinnell site is located in the Conestoga Valley Section of the Piedmont Physiographic Province.[13] The Conestoga Valley Section occupies the central half of Lancaster County and is characterized by a 10,000-foot section of limestones and dolomites of Cambrian and Ordovician age, with minor occurrences of quartzite, phyllite, and schist. Much of this stratigraphic sequence has commonly recurring lithologies and numerous facies changes. The site region has a gently rolling topography; relief is controlled by differences in the ability of the carbonates and shales to resist erosion. The drainage pattern throughout the study area is entirely dendritic.[14]

The dominant structural styles found in the site region are upright or slightly overturned isoclinal folds and steeply dipping axial plane cleavage that strikes east-northeast. The North Manor anticline, located 0.9 mile south of the site, is a good example of this structural style (see figure 3.1, pages 3-4). The anticline is isoclinal (having fold limbs that have parallel dips) and slightly overturned to the north and has a steep southward-dipping axial plane parallel to cleavage. The site lies 0.2 mile north of the axial plane of the northeastward-trending Columbia syncline (see figure 3.1, pages 3-4). Faulting, especially thrust features like the Chickies Thrust Fault (two miles north of the site), has added to the structural complexity of the region (see figure 3.1, page 3-4). The thrusting and folding episodes occurred during the Middle Ordovician age Taconic Orogeny, although additional structural adjustments and deformation occurred throughout the Paleozoic.[15]

The site is entirely underlain by the Cambrian-Ordovician age Conestoga Formation (see figure 3.1, pages 3-4).[16] The Conestoga Formation consists of medium gray, fine- to coarse-grained crystalline limestone with commonly occurring clay laminae. Much of the formation also contains thin micaceous beds. The base of the formation is usually marked by beds of conglomerate-containing carbonate clasts. These clasts can range in size from pebbles to boulders and can be a similar or different lithology than the matrix. Coarsely crystalline, silty, and sandy limestones also occur near the base of the formation. The thickness of the Conestoga Formation is not known since multiple folding makes accurate measurement very difficult. However, a good estimate would be approximately 1,000 feet thick.[14]



SOURCE: ATLAS OF PRELIMINARY GEOLOGIC QUADRANGLES OF PENNSYLVANIA

FIGURE 3-1

GEOLOGIC MAP

ITT GRINNELL

NUS CORPORATION

Stratigraphically older than the Conestoga Formation and cropping out two miles north of the site is the Cambrian age Buffalo Springs Formation. The Buffalo Springs Formation consists of white to very light pinkish-gray and medium gray to medium dark gray limestones, interbedded with very light pinkish-gray and yellowish-gray to medium dark gray dolomites. Sedimentary structures such as mudcracks, flow casts, ripple marks, and cross laminae indicate a shallow water paleoenvironment. The thickness of the formation is estimated to be between 1,500 and 3,800 feet.[14]

Stratigraphically older than the Buffalo Springs Formation and cropping out 2.7 miles north of the site is the Cambrian age Zooks Corner Formation. The Zooks Corner Formation is a thin- to thick-bedded, medium gray, very finely crystalline dolomite. The dolomite can range in color (white to medium dark gray) and crystallinity (very fine to coarse). Sedimentary structures scattered throughout the formation such as cross laminae, ripple marks, mud cracks, and graded bedding indicate a shallow water paleoenvironment. The total measured thickness of the formation is between 1,550 and 1,600 feet.[14]

Stratigraphically older than the Zooks Corner Formation and cropping out 0.3 mile and 2.2 miles north of the site is the Cambrian age Ledger Formation. The Ledger Formation is a massive, very light gray to light gray, medium to coarsely crystalline, sparkling dolomite. The formation is estimated to be 1,000 feet thick.[14]

Stratigraphically older than the Ledger Formation and cropping out 0.8 mile southeast and 0.35 mile north of the site is the Cambrian age Kinzers Formation. The Kinzers Formation consists of shale, limestone, and dolomite. The dolomite is thick bedded, medium gray to olive black in color, and very finely crystalline. The limestones can be of several types but is primarily a thick-bedded to massive, very light gray to pinkish-gray to medium dark gray, very finely crystalline rock. There are also prominent argillaceous to silty laminae that give the rock a reticulated appearance. The shale is a medium gray to medium dark gray in color. The formation is estimated to be between 300 and 600 feet thick.[14]

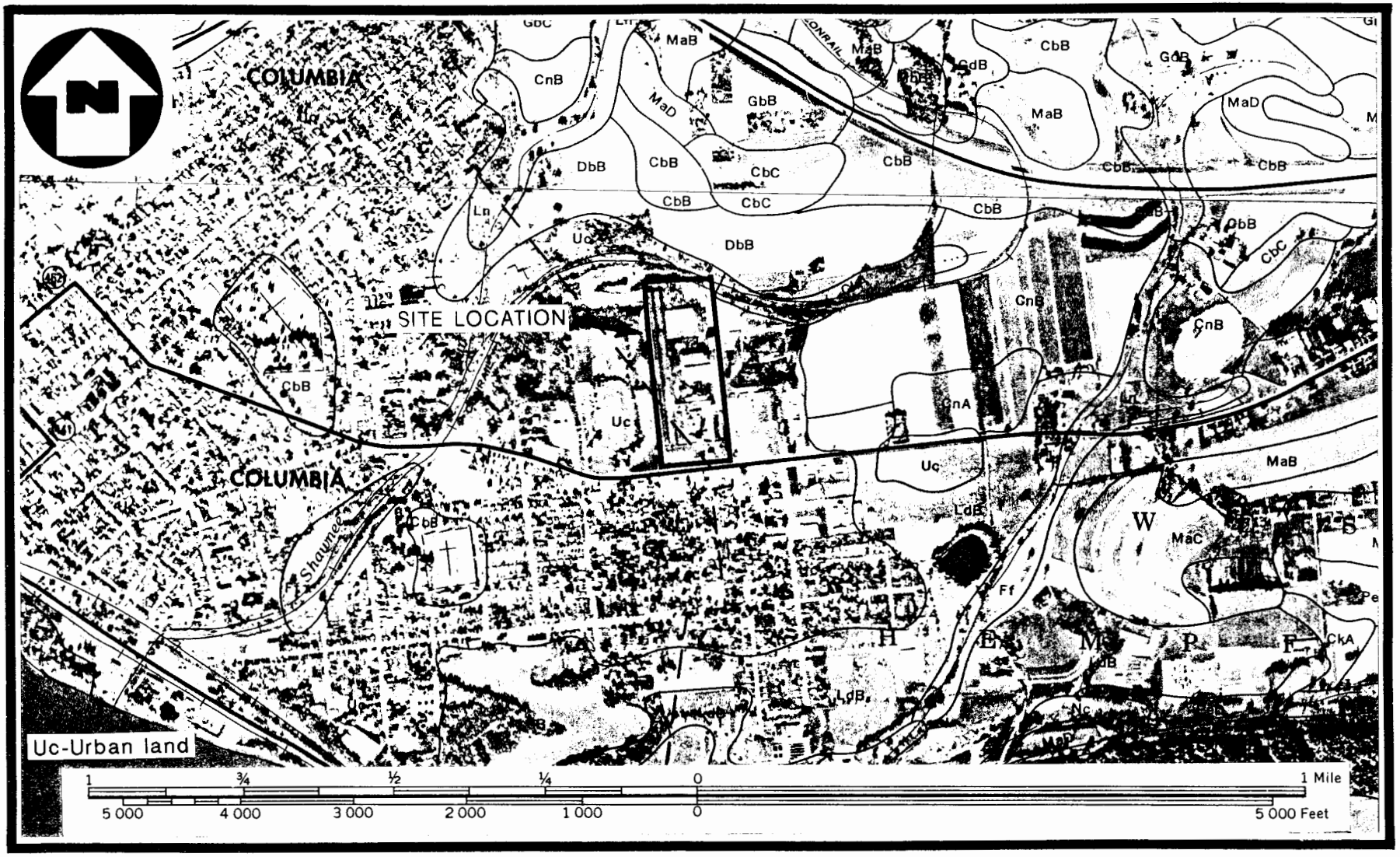
Stratigraphically older than the Kinzers Formation and cropping out 0.5 mile north and 0.7 mile south of the site is the Cambrian age Vintage Formation. The Vintage Formation consists of thick-bedded to massive, medium light gray to medium dark gray, very finely to finely crystalline dolomite. There are also thin shale interbeds and fine, wavy siliceous laminae at some horizons. Occasionally, white, pinkish-gray, and medium gray limestones and dolomites are interbedded with typical Vintage dolomite beds. The thickness of the Vintage Formation is estimated to be between 350 and 550 feet.[14]

Stratigraphically older than the Vintage Formation and cropping out 0.6 mile northeast and 0.75 mile south of the site is the Cambrian age Antietam Formation. The stratigraphically older Harpers Formation crops out 0.9 mile northeast of the site. Although occasionally thick enough to be mapped separately, the formations normally have such a very narrow areal extent that they are mapped as one unit. The Harpers Formation consists of a dark greenish-gray, coarse-grained phyllite and albite-mica schist. It grades upward into the Antietam Formation, a light gray, buff-weathering, fine-grained quartzite sandstone and quartz schist.[17] The maximum thickness of both units is 1,800 feet.[18]

Stratigraphically older than the Harpers Formation and cropping out 1.1 miles northwest of the site is the Cambrian age Chickies Formation. The Chickies Formation consists of a thick-bedded, light gray to white, hard quartzite and quartz schist that is thin bedded in the upper part and locally disintegrates into a fine white, siliceous clay. The basal Hellam Conglomerate Member consists of a coarse cobble conglomerate composed of well-rounded cobbles (three to six inches in diameter) and milky-white quartz pebbles (up to 1/2 inch in diameter) in a finer quartz matrix that firmly cements them.[17,18] The thickness of the formation is about 400 feet.[18]

3.3.2 Soils

The site is underlain by Urban land soils (see figure 3.2, page 3-7).[19] This unit consists of areas where 85 percent or more of the surface is covered by roads, railroads, sidewalks, parking areas, houses, factories, and other structures. Urban land soils are so altered that descriptions of their characteristics are so variable as to be meaningless.



SOURCE: SOIL SURVEY OF LANCASTER COUNTY

FIGURE 3-2

SOILS MAP

ITT GRINNELL

NUS CORPORATION

ORIGINAL (Red)

3.3.3 Groundwater

The formations present in the study area are mostly carbonates; therefore, water movement and storage are a function of fracturing, solution channels, and, to a lesser degree, bedding planes. It is quite likely that these formations are hydraulically interconnected via solution channels and fractures in the limestones and dolomites and via joints and fractures in the clastic rocks.

The Conestoga Formation is the aquifer directly underlying the site. As with most limestones, joint and solution-channel openings provide a secondary porosity of low magnitude. The formation has a low to moderate permeability.[18] Some wells encounter solution openings producing yields of 250 gpm, although typical yields would be in the range of 20 to 25 gpm. In Lancaster County, wells in the Conestoga range in depth from 38 to 502 feet (median depth is 105 feet). A total of 63 wells were tested for specific capacity, and the values obtained range from 0.02 to 130 gpm per foot (median specific capacity is 2.2 gpm per foot).[17]

The Buffalo Springs Formation has a low permeability and a moderate secondary porosity. The median yield of the formation is 10 gpm, and specific capacities range from 0.03 to 200 gpm per foot (median specific capacity is 0.2 gpm per foot).[17,18]

The Zooks Corner Formation has a moderate to high permeability and a low to moderate porosity.[18] Wells in this formation in Lancaster County range in depth from 8 to 400 feet (median depth of 76 feet) and have well yields between 3 and 105 gpm (median yield is 20 gpm). Specific capacities range from 0.04 to 46 gpm per foot (median specific capacity of 0.11 gpm per foot).[17]

The Ledger Formation has a low to high permeability and a low to high secondary porosity.[18] In Lancaster County, well depths in the formation range from 10 to 500 feet, with a median depth of 78 feet. Well yields range from 2 to 550 gpm, with a median yield of 30 gpm; 82 percent of wells tested had yields greater than 25 gpm. Specific capacities range from 0.16 to 135 gpm per foot, with a median specific capacity of 2.5 gpm per foot.[17] It is likely that the Ledger Formation is hydraulically interconnected to the adjacent aquifer of concern (the Conestoga Formation) through an interconnected network of fractures and solution channels.

The Kinzers Formation has a moderate permeability and a moderate secondary porosity.[18] In Lancaster County, 17 wells in the formation range in depth from 16 to 260 feet, although the median depth is only 55 feet. The median yield is 30 gpm, and specific capacities for 10 wells range from 0.05 to 38 gpm per foot (median specific capacity is 1.75 gpm per foot).[17]

The Vintage Formation has a low permeability and a secondary porosity of moderate magnitude due to joint and solution openings.[18] In Lancaster County, wells in the Vintage range in depth from 12 to 291 feet (median depth is 60 feet). The median yield is 30 gpm, although values as low as 2 gpm and as high as 70 gpm have been recorded. A total of 9 wells have a specific capacity range of 0.03 to 74 gpm per foot (median specific capacity is 0.44 gpm per foot).[17]

The Antietam and Harpers Formations have a low permeability and a low secondary porosity.[18] Although these units are commonly mapped together in Lancaster County, well data from the individual formations are available. Well depths in the Antietam range from 21 to 245 feet (median depth is 113 feet), and well yields range from 3 to 40 gpm (median of 0.75 gpm). Well depths in the Harpers range from 28 to 368 feet (median depth is 175 feet), and well yields range from 1.5 to 10 gpm (median of 5 gpm).[17]

The Chickies Formation has a very low permeability and a low secondary porosity.[18] Thirteen wells in the formation in Lancaster County range in depth from 45 to 100 feet (median depth is 127 feet) and have well yields between 1 and 30 gpm (median well yield is 6 gpm). Specific capacities from two wells were each about 0.2 gpm per foot.[17]

Based on topography, the direction of shallow, unconfined groundwater flow at the site will be to the north-northwest, toward a tributary of Shawnee Run. The area southwest of the Susquehanna River is hydraulically isolated from the site since the Susquehanna is a major discharge point for groundwater flowing from the northeast.[1]

3.4 Climate and Meteorology

The following values were compiled from the Ephrata, Pennsylvania region, which is approximately 20 miles northeast of the site This is the closest weather station to the site. The mean annual temperature of this area is 52.3°F. January is the coldest month, with a mean temperature of 29.0°F. July is the warmest month, with a mean annual temperature of 74.0°F. The mean annual precipitation for this area is 43.50 inches. The month with the highest precipitation is August, with a mean value of 4.47 inches. January has the lowest precipitation, with a mean value of 3.11 inches. The mean annual lake evaporation for this area is 34 inches, leaving a net precipitation of approximately 9.5 inches per year. The 1-year, 24-hour rainfall is 2.5 inches.[20]

3.5 Land Use

The three-mile-radius study area encompasses the town of Columbia, the town of Wrightsville, and West Hempfield Township. The subject site is located on the western border of the town of Columbia, a light commercial and industrial urban area.[10] The site area to the north is designated as an agricultural preserve that provides permanent protection from projects that could result in the conversion of farmland to other uses. The area to the south is a planned agricultural community.[21] A playing field is adjacent to the subject site to the west. Railroad tracks surround the site area to the north, west, and south.[2] The Susquehanna River, which borders the southern portion of the Columbia town limits, is widely used for fishing and recreation.[12]

3.6 Population Distribution

The western and southern portions of the site area are located in the town of Columbia, and the northern and eastern portions are in the township of West Hempfield. Assuming 3.8 persons per dwelling, and multiplying that figure by the number of households on U.S.G.S. topographic maps for Columbia East, Columbia West, Red Lion, and Safe Harbor, approximately 20,643 people live within the 3-mile radius, approximately 13,859 persons live within a 2-mile radius, and approximately 9,206 people live within a 1-mile radius of the site.[1,10]

3.7 Critical Environments

According to the United States Department of the Interior, Fish and Wildlife Service, there are two federally listed endangered birds expected to be found as transient species in the site area. They are the bald eagle (Halieetus leucocephalus) and the peregrine falcon (Falco peregrinus).[22] However, there is no listed critical habitat in the site area for these species.[23]

ORIGINAL
(Red)

SECTION 4

4.0 WASTE TYPES AND QUANTITIES

The waste materials generated from the ITT Grinnell site included foundry baghouse dust, furnace slags, unusable sandcores, sand, sludge from the galvanizing department, and spent pickle liquors. A currently inactive lagoon, 320 by 50 by 5 feet in size, received the effluent from the wastewater treatment plant. During the latter years of operation, ITT Grinnell handled and generated waste materials in the same manner as the Grinnell Corporation currently does. The earlier waste-handling and quantities are not known. However, using a 1-time full volume of the unlined lagoon, the waste quantity would be 3,086 cubic yards.[3,8]

The Grinnell Corporation transports the baghouse dust, furnace slag, and spent foundry sands (21,000 tons per year) to the Lancaster Area Refuse Authority Landfill, in Lancaster, Pennsylvania. Core wastes are transported off site to S.S. Fisher Corporation, in Lancaster, Pennsylvania. Galvanizing sludge (70 tons per year) is placed into a dumpster outside the wastewater treatment and is transported off site to Envirite Corporation, in York, Pennsylvania. Spent pickle liquor and acid rinse water are neutralized in the wastewater treatment plant before their discharge into the active lagoon and eventually into an unnamed tributary of Shawnee Run. Grinnell Corporation currently holds RCRA generator status (no. PAD09626649) for the generation of galvanizing sludge.[8]

SECTION 5

ORIGINAL (Red)

5.0 FIELD TRIP REPORT

5.1 Summary

On Wednesday, July 13, 1988, NUS staff members [redacted], and [redacted] performed environmental sampling in support of the site investigation at the ITT Grinnell facility in Columbia, Lancaster County, Pennsylvania. The field team was accompanied by ITT Grinnell representatives Michael Millhouse, Joseph Sutor, and Terry Wittenberg. Pennsylvania Department of Environmental Resources Superfund inspector David Vollero was also informed of the field schedule. Weather conditions were clear and sunny, with temperatures between 85°F to 90°F.

A total of seven aqueous and five solid samples, including blanks and duplicates, were collected (see figure 5.1, page 5-4). Photographs were taken at the site (see figures 5.3 and 5.4, pages 5-7 and 5-8, and the photograph log, section 5.5).

Deviations from the Sampling Plan

- One additional auger sample was collected from a previously unidentified inactive lagoon. The solid duplicate sample was also collected from this location.

5.2 Persons Contacted

5.2.1 Prior to Field Trip

5.2.2 At the Site

Michael Millhouse
Terry Wittenberg
Joseph Sutor
ITT Grinnell Corporation
1411 Lancaster Avenue
Columbia, PA 17512
(717) 684-4400

5.2.3 Water Supply Well Information

The following off-site wells were sampled during the site investigation. For the locations of these wells, see figure 5.2 (page 5-5). Completed well questionnaires can be found in appendix J.

5.4 Site Observations

- No above-background HNU or mini-alert readings were recorded.

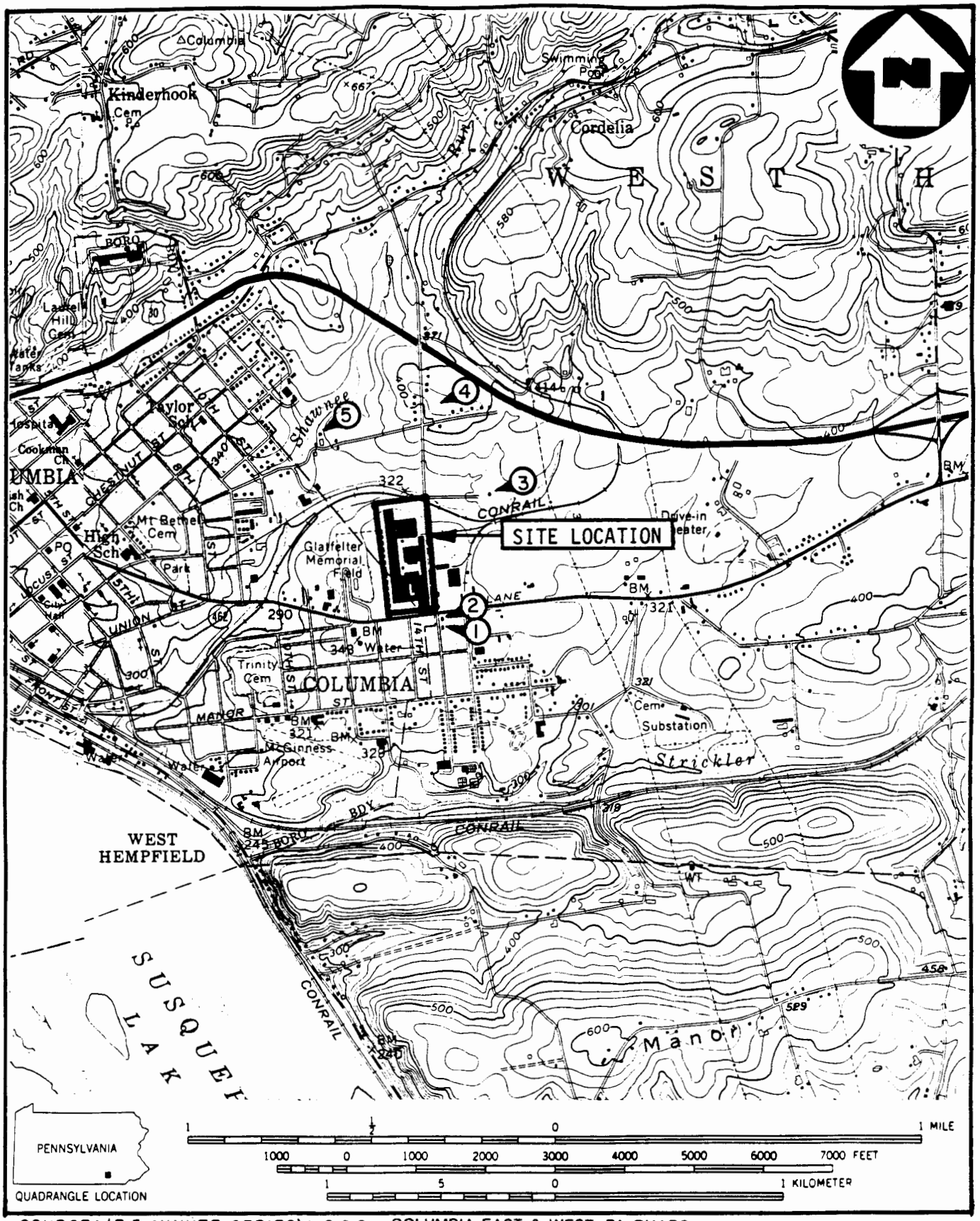
- There are three on-site lagoons located at the northern end of the property. The active lagoon is approximately 303 by 55 feet and is closest to an adjacent unnamed tributary to Shawnee Run. The larger of the inactive lagoons is 30 feet south of the active lagoon and is approximately the same size. The older, inactive lagoon is located to the west of the other lagoons, near the tree line. Its dimensions are unknown; however, it appears to have been approximately 63 feet in length. Both inactive lagoons have been backfilled and are revegetated. No stained areas were observed.

- Ponded water was observed in the larger inactive lagoon area. Although several springs reportedly originate from the slope below the present wastewater treatment plant, none were observed by NUS staff members.

- The lagoon area is flat (minimal slope). Surface water appears to drain to the active lagoon, which discharges to an unnamed tributary of Shawnee Run. The tributary joins Shawnee Run approximately 200 to 250 yards to the west of the site.

- Access to the lagoon area is restricted by a chain-link fence.

- A drum storage area was observed to the east of the lagoon area, near the plant buildings. Some drums were being stored on the ground while others were stored on pallets. The drums are reportedly empty hydraulic oil containers.



SOURCE: (7.5 MINUTE SERIES) U.S.G.S. COLUMBIA EAST & WEST, PA QUADS.

FIGURE 5.3

OFF-SITE PHOTO LOCATIONS

ITT GRINNELL, COLUMBIA, PA

SCALE 1: 24000

NUS CORPORATION

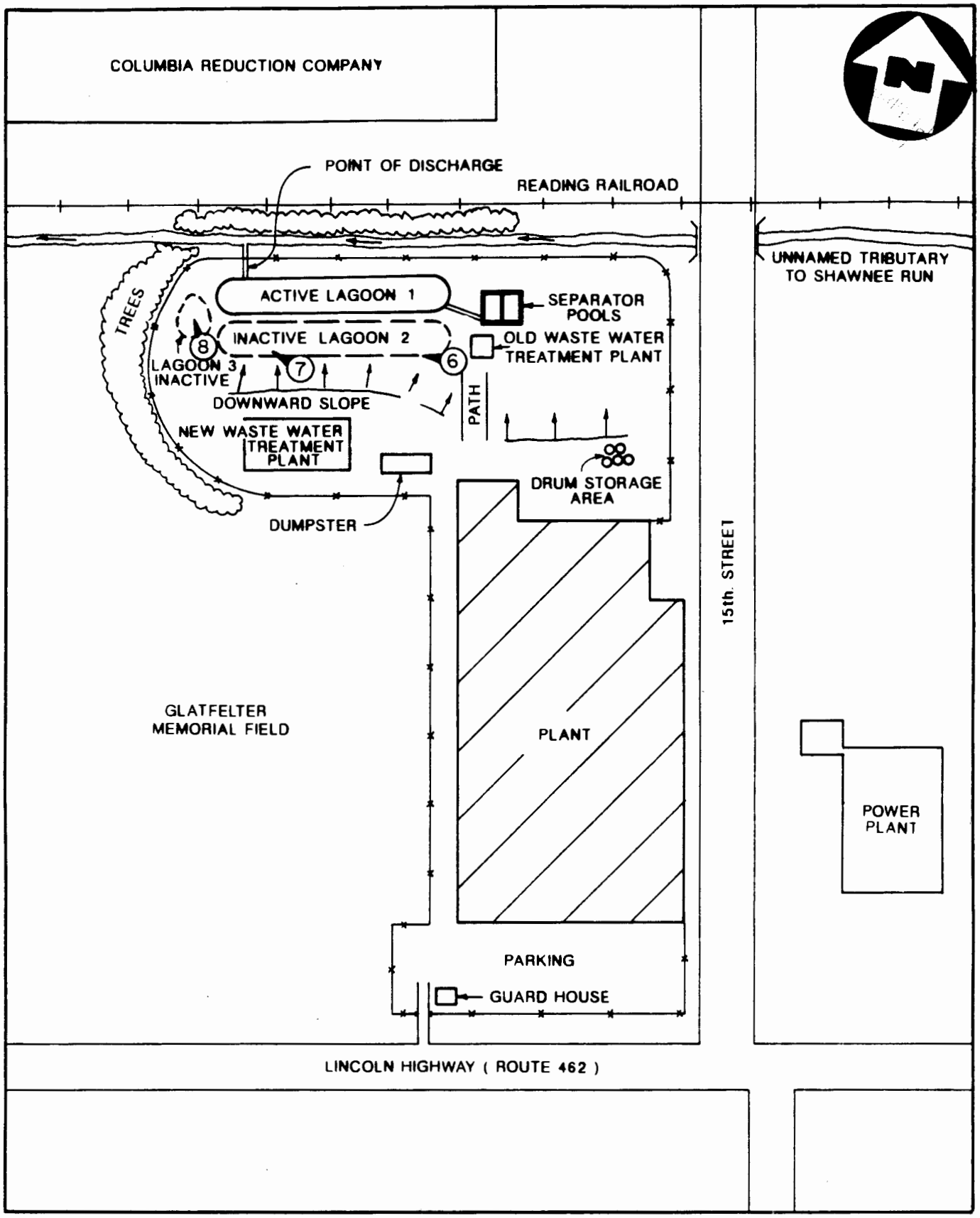


PHOTO LOCATION MAP

ITT GRINNELL, COLUMBIA, PA.

(NO SCALE)

FIGURE 5.4

NUS CORPORATION

F3-8806-06

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
PA	335

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
ITT Grinnell	1411 Lancaster Avenue

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG. DIST
Columbia	PA	17512	Lancaster	071	PA-16

09 COORDINATES LATITUDE	LONGITUDE	10 TYPE OF OWNERSHIP (Check one)
40° 02' 08"	76° 29' 06"	[X] A. PRIVATE [ ] B. FEDERAL _____ [ ] C. STATE [ ] D. COUNTY [ ] E. MUNICIPAL [ ] F. OTHER _____ [ ] G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
7/13/88	[X] ACTIVE [ ] INACTIVE	1925 (BEGINNING YEAR) N/A (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

[ ] A. EPA [X] B. EPA CONTRACTOR NUS Corporation (Name of firm) [ ] C. MUNICIPAL [ ] D. MUNICIPAL CONTRACTOR _____ (Name of firm)

[ ] E. STATE [ ] F. STATE CONTRACTOR _____ (Name of firm) [ ] G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
[redacted]	Environmental Scientist	NUS Corp. FIT 3	[redacted]
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
[redacted]	Environmental Scientist	NUS Corp. FIT 3	[redacted]
[redacted]	Biologist	NUS Corp. FIT 3	[redacted]
[redacted]	Biologist	NUS Corp. FIT 3	[redacted]
[redacted]	Geologist	NUS Corp. FIT 3	[redacted]
[redacted]	Geologist	NUS Corp. FIT 3	[redacted]

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO.
[redacted]	Senior Production Engineer	ITT Grinnell Corporation 1411 Lancaster Avenue Columbia, PA	[redacted]
[redacted]	ITT Representative	ITT Grinnell Corporation 1411 Lancaster Avenue Columbia, PA	[redacted]
[redacted]	ITT Representative	ITT Grinnell Corporation 1411 Lancaster Avenue Columbia, PA	[redacted]

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
[X] PERMISSION [ ] WARRANT	8:10 am	Clear and sunny, with temperatures of 85 to 90° F.

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
[redacted]	EPA	[redacted]

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
[redacted]	NUS Corporation	FIT 3	[redacted]	10/14/88

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
PA	335

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

ORIGINAL (RED)

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☒ C. SLUDGE
- ☐ D. OTHER Foundry Sand (Specify)
- ☐ E. SLURRY
- ☐ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

- TONS: unknown
- CUBIC YARDS:
- NO. OF DRUMS:

03 WASTE CHARACTERISTICS (Check all that apply)

- ☒ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☒ D. PERSISTENT
- ☒ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☐ G. FLAMMABLE
- ☐ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	900	pounds	disposed at Envirite Corporation
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS	75,000	pounds/year	caustics - treated by wastewater
ACD	ACIDS			treatment plant.
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
MES	cadmium	7440-43-9		7.9	mg/kg
MES	chromium	7440-47-3		115.0	mg/kg
MES	copper	7440-50-8		693.0	mg/kg
MES	lead	7439-92-1		648.0	mg/kg
MES	zinc	7646-85-7		12,300.0	mg/kg
MES	manganese	7439-36-5		7,600.0	mg/kg
OCC	phenol	108-95-2		4,400.0	mg/kg
MES	antimony	7440-36-0		62.7	mg/kg

IV. FEEDSTOCKS (See Appendix for CAS Numbers) N/A

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

PA DER. Preliminary assessment. August 21, 1981.
NUS FIT 3. Site inspection. July 13, 1988.

EPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE: PA	02 SITE NUMBER: 335

ORIGINAL (RED)

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Potential for groundwater contamination; lagoons were unlined

01 ☒ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 22,155 04 NARRATIVE DESCRIPTION

Surface water drains into a tributary of Shawnee Run. Notable levels of cadmium, chromium, copper, lead, manganese, and zinc were detected in on-site soil samples.

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

None known, reported, or observed.

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

None known, reported, or observed.

01 ☐ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

None known, reported, or observed.

01 ☒ F. CONTAMINATION OF SOIL — 02 ☒ OBSERVED (DATE: 12/88) ☐ POTENTIAL ☐ ALLEGED

03 AREA POTENTIALLY AFFECTED: 62 (Acres) 04 NARRATIVE DESCRIPTION

Elevated levels of zinc (12,300 mg/kg), cadmium (7.9 mg/kg), lead (648 mg/kg), antimony (62.7 mg/kg), and manganese (7,600 mg/kg) were detected in the southern lagoon area. No threat to human health is expected.

01 ☐ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 4,435 04 NARRATIVE DESCRIPTION

Elevated levels of the aforementioned metals have the potential to leach into groundwater if the pH were to decrease.

01 ☐ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

03 WORKERS POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

None known, reported, or observed.

01 ☐ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

None known, reported, or observed.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE: PA	02 SITE NUMBER: 335

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

ORIGINAL (Red)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None known, reported, or observed.

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION (Include name(s) of species)

None known, reported, or observed.

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None known, reported, or observed.

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills, Runoff, Standing liquids, Leaking drums) — 02 ☑ OBSERVED (DATE: 12/88) ☐ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 22,155 — 04 NARRATIVE DESCRIPTION

Lagoons on site are unlined. There are no diking or containment devices.

01 ☐ N. DAMAGE TO OFF-SITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None known, reported, or observed.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None known, reported, or observed.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

None known, reported, or observed.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

N/A

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

PA
NU

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

PA DER. Preliminary assessment August 21, 1981.
NUS FIT 3. Site inspection. July 13, 1988.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
PA	335

ORIGINAL (RED)

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☒ A. NPDES	0080195	2/15/84	2/15/89	
☐ B. UIC				
☒ C. AIR	36-304-034A	12/1/87	11/30/92	
☒ D. RCRA	PAD09626649	11/11/82	current	
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☒ A. SURFACE IMPOUNDMENT	620,000	gallons
☐ B. PILES		
☐ C. DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)
- ☐ A. INCINERATION
- ☐ B. UNDERGROUND INJECTION
- ☒ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☒ F. SOLVENT RECOVERY
- ☒ G. OTHER RECYCLING/RECOVERY
- ☐ H. OTHER (Specify)

05 OTHER
- ☒ A. BUILDINGS ON SITE
  3

06 AREA OF SITE
62 (Acres)

07 COMMENTS
Sludges and waters generated from manufacturing operations were sent to a wastewater treatment plant where they were treated by chemical fluctuation and pH adjustment (lime treatment). Solutions were then discharged to lagoons for further settling.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)
☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☒ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.
The settling lagoons were unlined and no containment existed for overflow

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NUS FIT 3. Site inspection. July 13, 1988.
PA DER, Bureau of Solid Waste, Region III.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
PA	335

ORIGINAL (RED)

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)	SURFACE	WELL
COMMUNITY	A. [X]	B. [X]
NON-COMMUNITY	C. [ ]	D. [ ]

02 STATUS	ENDANGERED	AFFECTED	MONITORED
	A. [ ]	B. [ ]	C. [ ]
	D. [ ]	E. [ ]	F. [ ]

03 DISTANCE TO SITE
A. .25 (mi)
B. 1,100ft. (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

[X] A. ONLY SOURCE FOR DRINKING
[ ] B. DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available)
[ ] C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available)
[ ] D. NOT USED, UNUSABLE

02 POPULATION SERVED BY GROUNDWATER: 4,435

03 DISTANCE TO NEAREST DRINKING WATER WELL: 1,100 (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
50 (ft)	north - northwest	50 (ft)	36,000 (gpd)	[ ] YES [X] NO

09 DESCRIPTION OF WELLS (Including usage, depth, and location relative to population and buildings)
Six inches in diameter; depths range from 100 to 400 feet (median of 400 feet); cased depth between 24 to 64 feet, (median of 11 feet); yields range from .5 to 25 gpm. Uses: residential, commercial, industrial, and institutional.

10 RECHARGE AREA		11 DISCHARGE AREA	
[X] YES	COMMENTS: Through surface percolation	[X] YES	COMMENTS: To tributary of Shawnee Run and to the Susquehanna River.
[ ] NO		[ ] NO	

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

[X] A. RESERVOIR, RECREATION, DRINKING WATER SOURCE
[ ] B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES
[ ] C. COMMERCIAL, INDUSTRIAL
[ ] D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Susquehanna River	[ ]	1.3 (mi)
Shawnee Run	[ ]	83 ft. (mi)
Unnamed tributary of Shawnee Run	[ ]	75 ft. (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. 9,206 NO. OF PERSONS	B. 13,859 NO. OF PERSONS	C. 20,643 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION: 1,000 feet (~~mi~~)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE: 3,638

04 DISTANCE TO NEAREST OFF-SITE BUILDING: 1,000 feet (~~mi~~)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)
The site is located in the town of Columbia, which is an urban area with a population of 10,466 persons.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION	
01 STATE: PA	02 SITE NUMBER: 335

VI. ENVIRONMENTAL INFORMATION

ORIGINAL (Red)

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. 10^{-6} - 10^{-8} cm/sec ☐ B. 10^{-4} - 10^{-6} cm/sec ☐ C. 10^{-4} - 10^{-3} cm/sec 10^{-5} - 10^{-7} cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE (10^{-4} - 10^{-6} cm/sec) ☐ C. RELATIVELY PERMEABLE (10^{-2} - 10^{-4} cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

10^{-3} - 10^{-5} cm/sec

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
9 (ft)	unknown (ft)	unknown	

06 NET PRECIPITATION	07 ONE-YEAR 24-HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
9.5 (in)	2.5 (in)	3 %	north	7 %

09 FLOOD POTENTIAL

SITE IS IN 3 YEAR FLOODPLAIN

10

N/A ☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5-acre minimum)

ESTUARINE: A. N/A (mi) OTHER: B. N/A (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

N/A (mi)

ENDANGERED SPECIES: N/A

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AG LAND
A. immediate (mi) area	B. 1,000 feet (xxx)	C. 1 (mi)	D. 1 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The site is located in the commercial/industrial town of Columbia. Areas to the north, west, and south are used primarily for agriculture. Directly to the east is the Susquehanna River, which is used as a drinking water supply and as a recreational and fishing area.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

PA DER. Preliminary assessment.
NUS FIT 3. Site inspection report.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
PA	335

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	5	Organic: IT Cerritos	December 1988
SURFACE WATER			
WASTE		Inorganic: JTU	
AIR			
RUNOFF			
SPILL			
SOIL	5		December 1988
VEGETATION			
OTHER	1 solid and 1 aqueous blank		December 1988

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
HNU	There was a background reading of 2.1 ppm. No readings were recorded above
	background.
radiation mini-alert	Set on X1 scale. No readings were recorded above background.

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☐ AERIAL

02 IN CUSTODY OF NUS FIT 3 Office
(Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS: NUS FIT 3 Office

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

N/A

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

NUS FIT 3. Site inspection. July 13, 1988.

EPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 7 - OWNER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
PA	335

II. CURRENT OWNER(S)

01 NAME: Grinnell Corporation		02 D+B NUMBER:	
03 STREET ADDRESS (P.O. Box, RFD #, etc.): 1411 Lancaster Avenue		04 SIC CODE:	
05 CITY: Columbia	06 STATE: PA	07 ZIP CODE: 17512	
01 NAME:		02 D+B NUMBER:	
03 STREET ADDRESS (P.O. Box, RFD #, etc.):		04 SIC CODE:	
05 CITY:	06 STATE:	07 ZIP CODE:	
01 NAME:		02 D+B NUMBER:	
03 STREET ADDRESS (P.O. Box, RFD #, etc.):		04 SIC CODE:	
05 CITY:	06 STATE:	07 ZIP CODE:	
01 NAME:		02 D+B NUMBER:	
03 STREET ADDRESS (P.O. Box, RFD #, etc.):		04 SIC CODE:	
05 CITY:	06 STATE:	07 ZIP CODE:	

PARENT COMPANY (if applicable)

08 NAME: N/A		09 D+B NUMBER:	
10 STREET ADDRESS (P.O. Box, RFD #, etc.):		11 SIC CODE:	
12 CITY:	13 STATE:	14 ZIP CODE:	
08 NAME: N/A		09 D+B NUMBER:	
10 STREET ADDRESS (P.O. Box, RFD #, etc.):		11 SIC CODE:	
12 CITY:	13 STATE:	14 ZIP CODE:	
08 NAME: N/A		09 D+B NUMBER:	
10 STREET ADDRESS (P.O. Box, RFD #, etc.):		11 SIC CODE:	
12 CITY:	13 STATE:	14 ZIP CODE:	
08 NAME: N/A		09 D+B NUMBER:	
10 STREET ADDRESS (P.O. Box, RFD #, etc.):		11 SIC CODE:	
12 CITY:	13 STATE:	14 ZIP CODE:	

III. PREVIOUS OWNER(S) (list most recent first)

01 NAME: ITT Grinnell		02 D+B NUMBER:	
03 STREET ADDRESS (P.O. Box, RFD #, etc.): 1411 Lancaster Avenue		04 SIC CODE:	
05 CITY: Columbia	06 STATE: PA	07 ZIP CODE: 17512	
01 NAME:		02 D+B NUMBER:	
03 STREET ADDRESS (P.O. Box, RFD #, etc.):		04 SIC CODE:	
05 CITY:	06 STATE:	07 ZIP CODE:	
01 NAME:		02 D+B NUMBER:	
03 STREET ADDRESS (P.O. Box, RFD #, etc.):		04 SIC CODE:	
05 CITY:	06 STATE:	07 ZIP CODE:	

IV. REALTY OWNER(S) (if applicable, list most recent first)

01 NAME: N/A		02 D+B NUMBER:	
03 STREET ADDRESS (P.O. Box, RFD #, etc.):		04 SIC CODE:	
05 CITY:	06 STATE:	07 ZIP CODE:	
01 NAME: N/A		02 D+B NUMBER:	
03 STREET ADDRESS (P.O. Box, RFD #, etc.):		04 SIC CODE:	
05 CITY:	06 STATE:	07 ZIP CODE:	
01 NAME: N/A		02 D+B NUMBER:	
03 STREET ADDRESS (P.O. Box, RFD #, etc.):		04 SIC CODE:	
05 CITY:	06 STATE:	07 ZIP CODE:	

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

PA DER. Preliminary assessment.
NUS FIT 3. Site reconnaissance report.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
PA	335

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D + B NUMBER	04 SIC CODE
Grinnell Corporation		

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE
1411 Lancaster Avenue	Columbia	PA	17512

08 YEARS OF OPERATION	09 NAME OF OWNER
2	Grinnell Corporation

OPERATOR'S PARENT COMPANY (if applicable)

10 NAME	11 D + B NUMBER	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE	14 CITY	15 STATE	16 ZIP CODE
N/A						

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

01 NAME	02 D + B NUMBER	04 SIC CODE
ITT Grinnell		

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE
1411 Lancaster Avenue	Columbia	PA	17512

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
18	unknown

PREVIOUS OPERATORS' PARENT COMPANIES (if applicable)

10 NAME	11 D + B NUMBER	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE	14 CITY	15 STATE	16 ZIP CODE
N/A						

01 NAME	02 D + B NUMBER	04 SIC CODE

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THS PERIOD

10 NAME	11 D + B NUMBER	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE	14 CITY	15 STATE	16 ZIP CODE
N/A						

01 NAME	02 D + B NUMBER	04 SIC CODE

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D + B NUMBER	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE	14 CITY	15 STATE	16 ZIP CODE
N/A						

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

PA FER. Preliminary assessment.
NUS FIT 3. Site reconnaissance report.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION	
01 STATE: PA	02 SITE NUMBER: 335

ORIGINAL (Red)

II. ON-SITE GENERATOR

01 NAME	02 D + B NUMBER
Grinnell Corporation	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
1411 Lancaster Avenue	

05 CITY	06 STATE	07 ZIP CODE
Columbia	PA	17512

III. OFF-SITE GENERATOR(S)

01 NAME	02 D + B NUMBER	01 NAME	02 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D + B NUMBER	01 NAME	02 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D + B NUMBER	01 NAME	02 D + B NUMBER
Envirite Corporation		N/A	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
1600 Pennsylvania			
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
York	PA / 17404		
01 NAME	02 D + B NUMBER	01 NAME	02 D + B NUMBER
		N/A	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

PA DER, Bureau of Solid Waste, Region III. Preliminary assessment.
NUS FIT 3. Site inspection. July 13, 1988.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE: PA	02 SITE NUMBER: 335

ORIGINAL (RED)

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ H. ON-SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☒ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY ITT Grinnell
04 DESCRIPTION
Lime treatment of wastewaters.

01 ☒ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY ITT Grinnell
04 DESCRIPTION
Wastewater treatment plant.

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Wastewater treatment plant; settling lagoons skim oil off the surface.

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Waste treatment plant holding tanks.

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE: PA	02 SITE NUMBER: 335

II. PAST RESPONSE ACTIVITIES (Continued)

ORIGINAL (Red)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☒ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
There was a chain fence around the site.

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☒ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
The old lagoon area has been filled. No records exist of the closure plan for the lagoon area.

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

PA DER Bureau of Solid Waste, Harrisburg. Telecon.
NUS FIT 3. Site Reconnaissance Report.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION	
01 STATE: PA	02 SITE NUMBER: 335

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION [X] YES [ ] NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

In conjunction with NPDES permit, a Consent Order and Agreement was sent to ITT Grinnell on December 19, 1980, finding the corporation in violation of the Pennsylvania Clean Streams Law. ITT Grinnell was found in violation of interim effluent limitations of zinc and iron. A citation was filed by the state on February 18, 1988, finding ITT Grinnell in violation of Pennsylvania Clean Streams Law. In addition, wastewater treatment facility improvements resulted from actions taken by the Pennsylvania Bureau of Water Quality.

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

PA DER, Bureau of Solid Waste. Preliminary assessment.

SECTION 6